

## IMPROVED CAPACITOR DESIGN IN ESD CIRCUITS FOR ELIMINATING CURRENT LEAKAGE

### ABSTRACT

[0029] An electro-static discharge (ESD) protection circuit for an integrated circuit (IC) is disclosed. The ESD protection circuit has a RC module having a resistor and capacitor connected in series; and a current dissipation module for dissipating the ESD, wherein the capacitor is formed by a thick native gate oxide of a transistor, and wherein the thick native gate oxide prevents leakage current formed therethrough so that to avoid leakage current through the current dissipation module during a normal operation of the IC.